## Figure 1A

No.	Kinase-Subclass	Family	Sub	Protein	αD sequence
1	Serine/Threonine	RAF		c-Raf	TQWCEGSSLYKHLHVQETK F
2	Serine/Threonine	RAF		Araf	TQWCEGSSLYHHLHVADTR F
3	Serine/Threonine	RAF		Braf	TQWCEGSSLYHHLHIIETKF
4	Serine/Threonine	CAPK		cAPKa _	MEYVPGGEMFSHLRRIGRF
4	Serine/Threonine	CAPK		cAPKb	MEYVPGGEMFSHLRRIGRF
5	Serine/Threonine	CAPK		cAPKg	MEYVPGGEMFSRLQRVGRF
6	Serine/Threonine	PKC	·	PKCa	MEYVNGGDLMYHIQQVGK F
7	Serine/Threonine	PKC		PKCb	MEYVNGGDLMYHIQQVGR F
8	Serine/Threonine	PKC		PKCg	MEYVTGGDLMYHIQQLGKI
9	Serine/Threonine	PKC		PKCd	MEFLNGGDLMFHIQDKGRF
10	Serine/Threonine	PKC		PKCe	MEYVNGGDLMFQIQRSRKI
11	Serine/Threonine	PKC		PKCet	MEFVNGGDLMFHIQKSRRF
12	Serine/Threonine	PKC		PKCth	MEYLNGGDLMYHIQSCHK

### Figure 1B

13	Serine/Threonine	Akt/PKB	Akt1/Raca	MEYANGGELFFHLSRERVF
13	Serine/Threonine	Akt/PKB	Akt2/Racb	MEYANGGELFFHLSRERVF
14	Serine/Threonine	GSK3	GSK3a	LEYVPETVYRVARHFTKAK LII
15	Serine/Threonine	GSK3	GSK3b	LDYVPETVYRVARHYSRAK QTL
16	Serine/Threonine	СК П	CK IIa	FEHVNNTDFKQLYQTL
17	Serine/Threonine	СК П	CK IIa'	FEYINNTDFKQLYQIL
18	Serine/Threonine	bARK1,2	bARK1	LDLMNGGDLHYHLSQHGV F
18	Serine/Threonine	bARK1,2	bARK2	LDLMNGGDLHYHLSQHGV F
19	Serine/Threonine	GRK1	GRK1	MTIMNGGDIRYHIYNVDED NPGF
20	Serine/Threonine	GRK4	GRK4	LTIMNGGDLKFHIYNLGNPG F
21	Serine/Threonine	GRK5	GRK5	LTIMNGGDLKFHIYNMGNP GF
22	Serine/Threonine	GRK6	GRK6	LTLMNGGDLKFHIYHMGQA GF
	1			1

# Figure 1C

23	Serine/Threonine	CaMK	CaMK I MQLVSGGELFDRIVEKGGY
24	Serine/Threonine	CaMK	CaMK IIa FDLVTGGELFEDIVAREYY
24	Serine/Threonine	CaMK	CaMK IIb FDLVTGGELFEDIVAREYY
24	Serine/Threonine	CaMK	CaMK IIg FDLVTGGELFEDIVAREYY
24	Serine/Threonine	CaMK	CaMK IId FDLVTGGELFEDIVAREYY
25	Serine/Threonine	POLO	Plk LELCRRSLLELHKRRKAL
26	Serine/Threonine	POLO	Plx1 LELCRRSLLELHKRRKAV
27	Serine/Threonine	POLO	polo LELCKKRSMMELHKRRKSI
28	Serine/Threonine	POLO	SNK LEYCSRRSMAHILKARKVL
29	Serine/Threonine	POLO	CDC5 LEICPNGSLMELLKRRKVL
30	Serine/Threonine	POLO	Sak LEMCHNGEMNRYLKNRVK PF
31	Serine/Threonine	POLO	Prk LELCSRKSLAHIWKARHTL

## Figure 1D

31	Serine/Threonine	POLO	Fnk	LELCSRKSLAHIWKARHTL
32	Serine/Threonine	POLO	Plo1	LELCEHKSLMELLRKRKQL
33	Serine/Threonine	MARK/p 78	MARK1	MEYASGGEVFDYLVAHGR M
33	Serine/Threonine	MARK/p 78	MARK2	MEYASGGEVFDYLVAHGR M
34	Serine/Threonine	MARK/p 78	P78	MEYASGGKVFDYLVAHGR M
35	Serine/Threonine	CDK	CDK2	FEFLHQDLKKFMDASALTGI
36	Serine/Threonine	CDK	CDK4	FEHVDQDLRTYLDKAPPPG L
37	Serine/Threonine	CDK	CDK6	FEHVDQDLTTYLDKVPEPG V
38	Tyrosine	SRC	c-Src	TEYMSKGSLLDFLKGETGK YL
39	Tyrosine	SRC	c-Yes	TEFMSKGSLLDFLKEGDGK YL
40	Tyrosine	SRC	Fyn	TEYMNKGSLLDFLKDGEGR AL
41	Tyrosine	SRC	c-Fgr	TEFMCHGSLLDFLKNPEGQ DL

# Figure 1E

42	Tyrosine	LYN/HC K		Lyn	TEYMAKGSLLDFLKSDEGG KV
43	Tyrosine	LYN/HC K		Hck	TEFMAKGSLLDFLKSDEGS KQ
44	Tyrosine	LCK		Lck	TEYMENGSLVDFLKTPSGIK L
45	Tyrosine	CSK		Csk	TEYMAKGSLVDYLRSRGRS VL
46	Tyrosine	CSK		Matk	MEHVSKGNLVNFLRTRGRA LV
47	Tyrosine	FAK		Fak	MELCTLGELRSFLQVRKYSL
48	Tyrosine	ABL		c-Abl	TEFMTYGNLLDYLRECNRQ EV
49	Tyrosine	ENDOTH ELIAL	Tie/Tek	Tie	IEYAPYGNLLDFLRKSRVLE TDPAFAREHGTASTL
50	Tyrosine	ENDOTH ELIAL	Tie/Tek	Tek	IEYAPHGNLLDFLRKSRVLE TDPAFAIANSTASTL
51	Tyrosine	ENDOTH ELIAL	FGFR	Flg	VEYASKGNLREYLQARRPP GLEYCYNPSHNPEEQL
52	Tyrosine	ENDOTH ELIAL	FGFR	Bek	VEYASKGNLREYLRARRPP GMEYSYDINRVPEEQM
53	Tyrosine	ENDOTH ELIAL	FGFR	FGFR-3	VEYAAKGNLREFLRARRPP GLDYSFDTCKPPEEQL

## Figure 1F

54	Tyrosine	ENDOTH ELIAL	FGFR	FGFR-4	VECAAKGNLREFLRARRPP GPDLSPDGPRSSEGPL
55	Tyrosine	ENDOTH ELIAL	PDGFR	PDGFR-a	TEYCFYGDLVNYLHKNRDS FLSHHPEKPKKELDIFGLNP A
56	Tyrosine	ELIAL	PDGFR	PDGFR-b	TEYCRYGDLVDYLHRNKHT FLQHHSDKRRPPSAELYSNA L
57	Tyrosine	ENDOTH ELIAL	Flt/Flk	Flt1	VEYCKYGNLSNYLKSKRDL FFLNKDAALHMEPKKEKME PG
58	Tyrosine	ENDOTH ELIAL	Flt/Flk	Flt4	VEFCKYGNLSNFLRAKRDA FSPCAEKSPEQRGRFRAMV EL
59	Tyrosine	ENDOTH ELIAL	Flt/Flk	Flk1	VEFSKFGNLSTYLRGKRNEF VPYKSKGARFRQGKDYVGE L
60	Tyrosine	HGFR		c-Met	LPYMKHGDLRNFIRNETHN P
61	Tyrosine	HGFR		c-Sea	LPYMRHGDLRHFIRAQERSP
62	Tyrosine	HGFR		Ron	LPYMCHGDLLQFIRSPQRNP
63	Tyrosine	EGFR		EGFR	TQLMPFGCLLDYVREHKDN I
64	Tyrosine	EGFR		ErbB2	TQLMPYGCLLDHVRENRGR L
65	Tyrosine	EGFR		ErbB3	TQYLPLGSLLDHVRQHRGA L

### Figure 1G

66	Tyrosine	EGFR	ErbB4	TQLMPHGCLLEYVHEHKDN
67	Tyrosine	RET	Ret	VEYAKYGSLRGFLRESRKV
				GPGYLGSGGSRNSSSLDHPD ERAL
68	Tyrosine	TRK-	Trk - NGFR	FEYMRHGDLNRFLRSHGPD AKLLAGGEDVAPGPL
		NGFR	NGFK	ARLLAGGLDVALGID
69	Tyrosine	TRK-	TrkB	FEYMKHGDLNKFLRAHGPD
		NGFR		AVLMAEGNPPTEL
70	Tyrosine	TRK-	TrkC	FEYMKHGDLNKFLRAHGPD
		NGFR		AMILVDGQPRQAKGEL
71	Tyrosine	SYK/ZA	Syk	MEMAELGPLNKYLQQNRH
		P70		V
72	Tyrosine	SYK/ZA	Zap70	MEMAGGGPLHKFLVGKRE
		P70		EI
73	Tyrosine	TYK/JA	Jak1	MEFLPSGSLKEYLPKNKNKI
		K		·
74	Tyrosine	TYK/JA	Jak2	MEYLPYGSLRDYLQKHKER
		K		I
75	Tyrosine	TYK/JA	Jak3	MEYLPSGCLRDFLQRHRAR
		K		L
76	Tyrosine	TYK/JA	Tyk2	MEYVPLGSLRDYLPRHSI
		K		
77	Serine/Threonine	IAK	Iak1	LEYAPLGTVYRELQKLSKF

## Figure 1H

}

78	Serine/Threonine	CHK		Chk1	LEYCSGGELFDRIEPDIGM
<del>.</del> 79	Serine/Threonine	IKK		IKK-1	MEYCSGGDLRKLLNKPENC CGL
80	Serine/Threonine	IKK		IKK-2	MEYCQGGDLRKYLNQFEN CCGL
81	Serine/Threonine	DAPK		DAPK	LELVAGGELFDFLAEKESL
82	Tyrosine	IRK		IRK .	MELMAHGDLKSYLRSLRPE AENNPGRPPPTL
83	Serine/Threonine	Activin/T GFbR	TGFbR	TGFbRII	TAFHAKGNLQEYLTRHVI
84	Serine/Threonine	Activin/T GFbR	ACTR	ACTRIIA	TAFHEKGSLSDFLKANVV
85	Serine/Threonine	Activin/T GFbR	ACTR	ACTRIIB	TAFHDKGSLTDYLKGNII
86	Serine/Threonine	Activin/T GFbR	ALK	ALK1	THYHEHGSLYDFLQRQTL
87	Serine/Threonine	Activin/T GFbR	ALK	ALK2	THYHEMGSLYDYLQLTTL
88	Serine/Threonine	Activin/T GFbR	ALK	ALK3	TDYHENGSLYDFLKCATL
89	Serine/Threonine	Activin/T GFbR	ALK	ALK4	SDYHEHGSLFDYLNRYTV

### Figure 1I

89	Serine/Threonine	Activin/T GFbR	ALK	ALK5	SDYHEHGSLFDYLNRYTV
90	Serine/Threonine	Activin/T GFbR	ALK	ALK6	TDYHENGSLYDYLKSTTL
91	Tyrosine	DDR		DDR1	TDYMENGDLNQFLSAHQL
92	Tyrosine	DDR		DDR2	TEYMENGDLNQFLSRHEP
93	Serine/Threonine	ILK		ILK	THWMPYGSLYNVLHEGTNF VV
94	Tyrosine	MAPK		JNK	MELMDANLCQVIQMEL

#### Figure 2A

```
Protein Kinase
         TQWCEGSSLYKHLHIETKF
c-Raf
         SNFSDATTIFH
                                     VDSRW
                                 I
Araf
                         MWR
                                     M *
                                 M
Braf
                                      L
         MEYVPGGEMFSHLRRIGRF
cAPKa
         I Q F L N A A D L M F R I Q H V R K W L D W A T * I W Y Q M S Q E H V Y V N I S V Y W K V K D L K I * M Q I T N N K K A L G L T S S M
cAPKb
cAPKg
                                      N C
E M
T D
* R
                            V
                                        T
         MEYVNGGDLMFHIQQVGKF
PKCa
         IDFLTAAEIIYQLÑDLRRW
PKCb
                        * MLWNM
                                      RKH
         L * W I Q
PKCg
PKCd
               MS
                          VV
                                      KSK
                                      S
                                        CA
PKCe
                                      ΝI
PKCet
                                      E M
PKCth
                                      T
                                        R
Akt1/Raca MEYANGGELFFHLSRERVF
 Akt2/Racb I Q F V Q A A D I W W
                                  ITHDKIW
                        * M Y Y
                                      K *
                                            LY
         LDWI
                                  M
 DmRAC
                          V
                                            M
          V N
                L
               M
                G
         LEYVPETVYRVARHYTKAKQII
IDFI DSIHKIIKQFSRTNLTL
 GSK3a
          IDFI
 GSK3b
                              LV
                                    ΝWΑ
                                             LRNRM
                        L F
         M * WL
 Sgg/zw3
                                             SQILV
I MM
                        MW
                              M L
                                        N
          V
                M
 ASK-a
                                         Q
G
                                M
 ASK-g
                                                 VΥ
                                            M
                                G
                                             V
                                                   S
                                             G
                                                   K
          FEHVNNTDFKQLYQTL
WDYIQQSEWRNIFNII
Y*FL *Y MW SM
 CK IIa
 CK IIa'
                                       S M
                                      MV
              WM
                                       V
                                       L
```

### Figure 2B

```
LDLMNGGDLHYHLSQHGVFNPGF
MTIIQAAEIRF IYNVDEDGFAW
IEML *MKW MTHLENPQW Y
bARK1
bARK2
          I E M L
GRK1
                                       VF
                                             MAQAÂY
I*IW
          V S V V
                             V
GRK4
                                         W
GRK5
                                                  LY
GRK6
                                                  M E
                                                  D G
CaMKI MQLVSGGELFDRIVEKGGY
CaMKIIa FDIITAADIWEDLIAREYF
                           * M Y * K M L D
                                                DFW
CaMK IIb WNML
                              ٧
                                     EVMG
                                                 A W
          YEVM
CaMK IIg
          I *
                                                 * A
CaMK IId
          L
           V
          LELCRRRSLLELHKRRKALF
Plk
           IDISKKGEMMAILRA
M*Y SNKDINRYW N
                                                 HSVW
Plx1
                                                 VVIY
          M *
Polo
                    PHATVAHMI
                                                 RKP
                                            K
               M
SNK
                                            Q
                                                 ITM
                V
                    H Q
                                IDVM
CDC5
                    E
T
D
                                                \begin{array}{c} L \ Q \\ M \ T \end{array}
                F
                                VKFV
Sak
                                QGWF
G*Y
Prk
                                                   I
Fnk
                                                   L
Plo1
                                                   M
                                                   R
                                                   N
                                                   G
          M E Y A S G G E V F D Y L V A H G R M
L D F G T A A K I W E F I I G A K I
P78
MARK1
                           DLY*WML
           I * W
                                                      L
MARK2
                                                      \tilde{	ext{v}}
                                       V M
                            R M
           ٧
Par1
           F E F L H Q D L K K F M D A V A L T G I
W D H V D N E I R T Y L E K S P P P A L
CDK2
 CDK4
               WIE
                          * MTRWI * RAGES
                                                        V
 CDK6
                Y M *
                            V S S
                                          G I
                                                 Ι
                                                        M
                                            L
                                                 M
                                                 V
                                            M
                                            T
                                                 D
```

w \* Y

### Figure 2C

```
TEFMSKGSLLDFLKGETGKYL
c-Src
          MDYVNHANIVNYIREGSRRAV
c-Yes
                                             D P D K Q D Q
N D E A G K I
                            TMIEWM
          S
               HICN
Fyn
               WLAR
EQ
T
                            QVMQ
                                        ٧
           I
c-Fgr
                                             S R G
T K A
Q A *
A *
                                                       SVM
Lyn
                                                       ILN
Hck
                                                      A F
N W
                    QDG*
Lck
Csk
                                                       ΤE
Matk
                                                      LR
                                                      M I
                                                       V M
                                                         G
          MELCTLGELRSFLQVRKYSL
Fak
           IDISSIADIKTWINIKRFTI
                            * M
             * M
                                      \mathbf{Y}\mathbf{M}
                                             L
                                                    W
                                                         Μ
                       M
                               V
                V
                       V
                                             M
           T E F M T Y G N L L D Y L R E C N R Q E V S D W I S F A Q I I E F I K D S Q K N D I * Y L W MM * WM * L V V V M
c-Abl
           IEYAPYGNLLDFLRKSRVLETDPAFAREHGT
           TDFCRHADIVNYIHRNKHTFLQHHSDIANSP
V*WSFF QMSTWMKSK DSDFSNKPEKRRPE
L TKW EVIE V AT NAWSLCRDKAPKKR
M GW * MQ GQ IEYVPYGERSLEMS
S Y TS TR LI*IEQ WGGDQQD
Tek
PDGFR-b
PDGFR-a
                                 M Q
T S
Flt1
                                                           I E Q
MNF
WTW
YIS
                                                                     W G G D Q Q D
Y * L K D F K
T M I * T *
Flt4
                                                    MM
EV
QD
* G
Flk1
                                                                           V M
                                                                                  R
I
                                                                           Т
                                                                             V
                                                              M
                                                                             Ġ
*
                                                                                  L
                                                               V
                                                                                 V
N
W
                                                                                  Y
           STLYSNAL
Tie
               FGLEPA
           AE
Tek
                EKMVEG
          DI
PDGFR-b
          KKRAVGDI
PDGFR-a
           RFDFTQGM
GSIWID*V
Flt1
Flt4
           TDMR
                        Ι
Flk1
           ELV
                       L
             MW
VY
RK
                       M
```

#### Figure 2D

```
V E Y A S K G N L R E Y L Q A R R P P G L E Y C Y N P S H N P
Flg
                                                      AMDLSFDINRVS
P*FTPQTCKPT
I W WEGP S
V I *LT Q
          IDCGARAQIKDFIRGKK
Bek
          L * F
                   \mathbf{T}
                                  * W M N
                             M
FGFR-3
                                      V K
FGFR-4
               W
                   G
          M
                                                                              Q
I
               S
                                                                       MQ
                                                             M
                                                              V
                                                                       V
                                                                              L
                                                                       S
                                                                              M
                                                                       A
                                                                              T
Flg
          EQL
Bek
          GP M
          DNI
FGFR-3
FGFR-4
          Α
               V
          L P Y M K H G D L R N F I R N E T H N P I F I R A E I L H W L K A Q E R S
c-Met
c-Sea
                                           SPQKQ
               WLC
                           * M K Q Y M
Ron
          M
                    Š
                                           Q D S
T N D
                             VΙ
                  V
                                       V
                                M
                                V
                                           G
                                              *
                                                N
           TQLMPFGCLLDYVREHKDNI
EGFR
           SNYL
                      YASIIEHIHQNRGRL
ErbB2
                           TMM*FLKDQ
                                                  EAM
               II
ErbB3
                      L
                              v v
                                    WM
                                           N
                                                  A Q V
               M V
                      H
ErbB4
               V
                      W
                                                   *
                                                    Ŕ
               F
                                                     G
                       Ι
                      \mathbf{M}
               W
           V E Y A K Y G S L R G F L R E S R K V G P G Y L G S G G S R N I D F G R F A T I K A W I K D T K R I A A F I A T A A T K Q
Ret
           L * W
                             M
                                                              WM
                      W
                                    Y M
                                                     L
                                                                 V
                                       v
                                                     M
          M
           S S L D H P D E R A L
T T I E E D K G I
Ret
               M *
                         *
                                  M
                V
                                  v
```

### Figure 2E

```
M E M A E L G P L N K Y L Q Q N R H V I
I D I G G G A I H R F I V G K K E E L
Syk
Zap70
          *
            L
                DΙ
                       M Q
                             WMNNQ
                                        DIM
                A M
                               VIAR
                                        * L V
                  V
                                 L
                                          M
                  Α
                                 M
                                          D
Jak1
        MEFLPSGSLKEYLPKNKNKI
                  YACIRDFIQRHRERL
T TM *WMN QSA M
F V V TO V
Jak2
        I D Y I
Jak3
        L * WM
Tyk2
                                        Q
                  W
                                        Ď
                  L
                                        G
                  1
                                        Ι
                                        L
        LEYAPLGTVYRELQKLSKF
Iak1
                  IASIFKDIÑRITRW
        IDFG
        M * W
                       LW * M
                 M
                                    M
                                          Y
                  v
                       M
Chk1
        LEYCSGGELFDRIEPDIGM
        IDFSTAADIWEKLD
                                    ELAI
                      * M Y *
                              M *
                       V
IKK-1
        M E Y C S G G D L R K L L N K P E N C C G L I D F S Q A A E I K R Y I Q Q F D Q S S A I
IKK-2
          * W
                Ť
                     * M
        L
                             IM RW*
                                               M
                N
                             M V
                                  NY
                             V
                             F
                             W
DAPK
        LELVAGGELFDFLAEKESL
        IDIIGAADIWEWIGDRDTI
        M * M L
                     * M Y * Y M
            VM
IRK
        MELMAHGDLKSYLRSLRPEAENNPGRPPPTL
        IDIIG AEIRTFIKTIK DGDQQ AK
                                                              SI
        L * ML
                            WM
                     * M
                                    M
                                                                M
            \bar{v}\bar{v}
                                                                V
        T A F H A K G N L Q E Y L T R H V I
S G W E R A S I S D F I K A N I V
TGFbRII
ACTRIIA S G W
            Y
ACTRIIB
               D
                     QMT * WMSGQLL
                     ŤΥ
                              VRK MM
               G
```

### Figure 2F

```
THYHEHGSLYDFLQRQTL
SDF DMATIFEYIKLTSV
ALK1
ALK2
         E W
               N
                     MW * WMNCA
ALK3
                                    I
                Ι
                     V
                            VRSY
ALK4
                                    M
                L
V
Q
                               ΚN
ALK5
                               I S
M F
V W
ALK6
                               T G
Trk-NGFR F E Y M R H G D L N R F L R S H G P D A K L L A G G E D V A P
       WDFIK
                AEIQKWIKA
                                      EGVIMVEANPPTE
TrkB
                                  Α
       Y * WL
                   * M
                          ΥM
                               T
                                         MMII D
                                                   QERQA
TrkC
                     V
                               G
                                         RVVLA
                                                   D *
                                                       ISD
                                              M *
                                                    *
                                                       LNG
                                         I
                                                       M G *
                                         L
                                              G
                                                       K
Trk-NGFR P L L
       GEI
TrkB
       A I M
TrkC
         M V
         V
         D
       TDYMENGDLNQFLSAHQL
DDR1
       SEFIDQAEIQNWITR
DDR2
                                   ĔΡ
           WL *
                   *
                     M
                          ΥM
                               K
                                  NΙ
                               G
                     V
                            V
                                  D V
                                    M
       THWMPYGSLYNVLHEGTNFVV
ILK
           FI FATIFQII
YL W MW LM
M V MV
                               DASQWII
```

YLLMM

## Figure 3A

Peptide Akt1/Raca	N-terminal																								C-t	terminal
95 K014D001	Myristyl -	G	M	Ε	Y	A	N	G	G	E	L	F	F	н	L	S	R	E	R	V	F					- NH2
ALK1																										
96 K048D101	Myristyl -	G	T	Н	Y	н	Е	Н	G	S	L	Y	D	F	L	Q	R	Q	T	L						- NH2
Braf																										
97 K003D001	Acetyl -	K	ĸ	K	K	K	K	G	G	S	S	L	Y	Н	Н	L	н	I	I	E	Т	K	F			- NH2
98 K003D101	Myristyl -	G	T	Q	w	S	E	G	S	S	L	Y	н	н	L	H	1	I	E	T	K	F				- NH2
<u>c-Abl</u>																										
99 K061D101	Myristyl -	G	T	E	F	M	T	Y	G	N	L	L	D	Y	L	R	E	С	N	R	Q	E	V	,		- NH2
c-Met																										
100 K073D101	Myristyl -	G	L	P	Y	M	K	Н	G	D	L	R	N	F	I	R	N	E	T	H	N	P				- NH2
c-Raf																							•			
101 K001D101	Myristyl -	G	T	Q	W	s	E	G	S	S	L	Y	K	н	L	Н	V	Q	E	T	K	F				- NH2
102 K001D001	Acetyl -	S	S	L	Y	K	н	L	H	V	Q	E!	T	K	F											- NH2
c-Sea																										
103 K074D101	Myristyl -	G	L	P	Y	M	R	H	G	D	L	R	H	F	I	R	A	Q	E	R	S	P		-		- NH2
c-Src																										
104 K051D101	Myristyl -	G	T	E	Y	M	s	K	G	S	L	L	D	F	L	K	G	E	T	G	K	Y	L	,		- NH2
105 K051D001	Acetyl -	G	S	L	L	D!	L	K	G	E!	T	G	K	F	L											- NH2
CDK2																										
106 K049D101	Myristyl -	G	F	E	F	L	Н	Q	D	L	K	K	F	M	D	A	S	A	L	T	G	I				- NH2
107 K049D001	Acetyl -	D	L	K	K	F	M	D!	A	S	A	L	T	G	M	[										- NH2 ·
CDK4																										
108 K050D001	Acetyl -	D	L	R	T	Y	L	D!	K	A	P	P	P	G	L											- NH2
109 K050D101	Myristyl -	G	F	E	H	v	D	Q	D	L	R	T	Y	L	D	K	A	P	P	P	G	L				- NH2
CDK6																										
110 K089D101	Myristyl -	G	F	E	н	V	D	Q	D	L	T	T	Y	L	D	K	Ņ	P	E	P	G	V				- NH2
<u>Chk1</u>																										
111 K088D102	Myristyl -	G	E	Y	S	S	G	G	E	L	F	D	R	I	Ε	P	D	I	G	M	[					- NH2
112 K088D101	Myristyl -	G	E	Y	A	s	G	G	E	L	F	D	R	1	E	P	D	I	G	M	Į.					- NH2
CK IIa																										
113 K022D001	Acetyl -	K	K	K	K	K	G	G	N	N	T	D	F	K	Q	L	Y	Q	T	L						- NH2
114 K022D101	Myristyl -	G	F	E	Н	V	N	N	T	D	F	K	Q	L	Y	Q	T	L								- NH2

### Figure 3B

	<u>Csk</u>																										
115	K058D101	Myristyl -	G	T	E	Y	M	A	K	G	S	L	v	D	Y	L	R	S	R	G	R	S	V	L	•	- NH2	;
116	K058D001	Acetyl -	G	s	L	V	D!	L	R	S	R	G	R	S	V	L										- NH2	?
	<u>Fak</u>																										
117	K060D101	Myristyl -	G	M	E	L	S	T	L	G	E	L	R	S	F	L	Q	V	R	K	Y	S	L			- NH2	2
	FGFR-3																										
118	K071D101	Myristyl -	G	G	N	L	R	E	F	L	R	Α	R	R	P	P	G	L	E							- NH2	2
119	K071D001	Acetyl -	G	N	L	R	E!	F	L	R	A	R	R	P	P	G	L	E!								- NH2	2
120	K071D102	Myristyl -	G	V	E	Y	Α	Α	K	G	N	L	R	E	F	L	R	A	R	R	P	P	G	L	E	- NH2	2
121	K071D901	Stearyl -	G	S	F	D	T	s	K	P	P	E	E	Q	L											- NHZ	2
	Flk1																										
122	K068D101	Myristyl -	G	V	E	F	s	K	F	G	N	L	S	N	F	L	R	A	K	R	N	L	F	7	7 P	- NH2	2
123	K068D101	Myristyl -	G	G	N	L	S	N	F	L	R	A	K	R	N	L	F	V	P						•	- NH2	2
124	K068D001	Acetyl -	G	N	L	S	N	F	L	R	A	K	R	N	L	F	V	P								- NH	2
125	K068D901	Stearyl -	G	R	F	R	Q	G	K	D	Y	V	G	E	L											- NH	2
	GSK3b																								•		
126	K018D003	Acetyl -	K	K	K	K	K	K	G	G	G	V	A	R	H	Y	S	R	A	K	Q	T	L	F	•	- NH	2
127	K018D002	Acetyl -	V	A	R	H	Y	S	R	A	K	Q	T	L	P											- NH	2
128	K018D101	Myristyl -	G	D	Y	v	P	E	T	V	Y	R	V	A	R	H	Y	S	R	Α	K	Ç	) T	I		- NH	2
129	K018D001	Acetyl -	R	V	A	R	H	Y	S	R	A	K	Q	T												- NH	2
	<u>Hck</u>																										
130	K056D101	Myristyl -	G	T	E	F	M	A	K	G	S	L	L	D	F	L	K	S	D	E	G	S	K	. (	5	- NH	2
	<u>Iak l</u>										•																
131	K087D101	Myristyl -	G	L	E	Y	A	P	L	G	T	V	Y	R	E	L	Q	K	L	S	K	F				- NH	2
	IKK-1																										
132	K090D101	Myristyl -	. G	M	Ε	Y	S	S	G	G	D	L	R	K	L	L	N	K	P	E	N	S	S	(	3 L	- NH	2
	IKK-2																										
133	K091D101	Myristyl -	G	M	E	Y	S	Q	G	G	D	L	R	K	Y	L	N	Q	F	E	N	S	S	(	3 L	- NH	2
	ILK											-															
134	K107D101	Myristyl -	G	T	H	W	M	P	Y	G	S	L	Y	N	V	L	H	Ε	G	T	N	F	V	7	V	- NH	2
135	K107D901	Stearyl -	G	Y	N	$\mathbf{v}$	L	Н	Ε	G	T	N	F	V	V											- NH	2

in the second

# Figure 3C

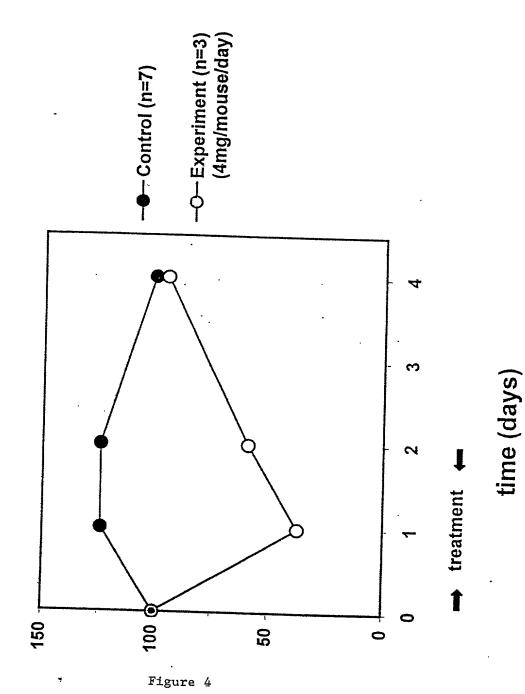
<u>IRK</u>																										
136 K094D101	Myristyl -	G	M	E	L	M	Α	Н	G	D	L	K	S	Y	L	R	S	L	R	P						- NH2
137 K094D001	Acetyl -	A	Q	N	N	P	G	R	P	P	P	Т	L													- NH2
138 K094D102	Myristyl -	G	L	K	s	Y	L	R	S	L	R	P	E	A												- NH2
139 K094D103	Myristyl -	G	Α	E	N	N	P	G	R	P	P	P	Т	L												- NH2
140 K094D104	Myristyl -	G	L	R	P	E	Α	E	N	N	P	G	R	P	P	P	T	L								- NH2
Jak1																										
141 K084D101	Myristyl -	G	M	E	F	L	P	s	G	S	L	K	E	Y	L	P	K	N	K	N	K	: 1				- NH2
142 K084D102	Myristyl -	G	L	K	E	Y	L	P	K	N	K	N	K	I												- NH2
Jak2																										
143 K085D102	Myristyl -	G	L	R	D	Y	L	Q	K	Н	K	E	R	I												- NH2
144 K085D105	Stearyl -	G	L	R	D	Y	L	Q	K	Н	K	E														- NH2
Jak3																							•			
145 K086D101	Myristyl -	G	M	E	Y	L	P	s	G	S	L	R	D	F	L	Q	R	H	R	A	L			_		- NH2
146 K086D102	Myristyl -	G	M	E	Y	L	P	S	G	s	L	R	D	F	L	Q	R	H	R	A	R	I	,			- NH2
147 K086D103	Myristyl -	G	L	R	D	F	L	Q	R	H	R	A	R	L												- NH2
<u>Lck</u>																										
148 K057D001	Acetyl -	G	s	Ľ.	V	D!	L	K	T	P	s	G	I	K	L											- NH2
149 K057D101	Myristyl -	G	T	E	Y	M	E	N	G	S	L	V	D	F	L	K	Т	P	S	G	I	K	Ι	,		- NH2
Lyn																										
150 K055D101	Myristyl -	G	T	E	Y	M	A	K	G	S	L	L	D	F	L	·K	S	D	E	G	G	ŀK	7	7		- NH2
MARK1																										
151 K045D101	Myristyl -	G	M	E	Y	A	S	G	G	E	v	F	D	Y	L	V	A	H	G	R	M	1				- NH2
PDGFR-b																										
152 K064D001	Acetyl -	G	D!	L	V	D!	Y	L	Η	R	N	K	H	T	F	L										- NH2
153 K064D101	Myristyl -	G	T	Ė	Y	S	R	Y	G	D	L	V	D	Y	L	H	R	N	K	H	Т	F	L			- NH2
<u>PKCb</u>																										
154 K008D101	Myristyl -	G	M	E	Y	V	N	G	G	D	L	M	Y	H	I	Q	Q	V	G	R	F					- NH2
155 K008D001	Acetyl -	K	K	K	K	K	K	G	G	D	L	M	Y	H	1	Q	Q	V	G	R	F					- NH2
<u>Plk</u>																										
156 K035D001	Acetyl -																									- NH2
157 K035D101	Myristyl -	G	R	S	L	L	E!	L	H	K	R	R	K	A												- NH2

### Figure 3D

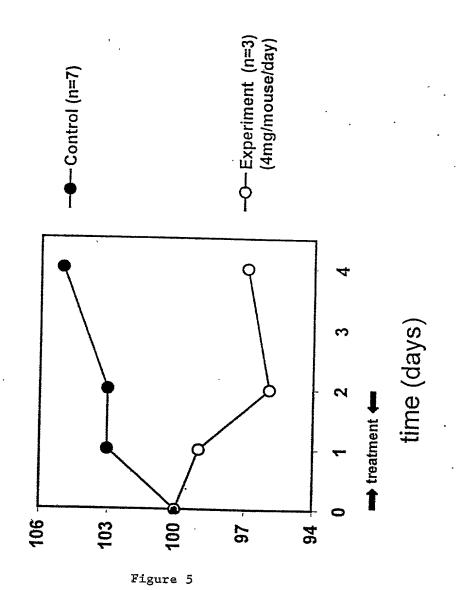
158 K035D102	Myristyl - (	G L	E L	S R	R	R S	L	LE	L	нкк	.R.	K A	L		- NH2
<u>Ret</u>															
159 K080D101	Myristyl - (	G V	E Y	A K	Y	G S	L	R G	F	LRE	S	R K	VG	P	- NH2
160 K080D001	Acetyl - (	G S	L R	G F	L	R E	S	R K	v	G P					- NH2
Ron							•								-
161 K075D101	Myristyl - (	G L	PΥ	мс	H	G D	L	L Q	F	IRS	P	QB	NP		- NH2
<u>snk</u>															
162 K038D101	Myristyl - (	G L	ΕY	S S	R	R S	M.	A H	I	LKA	R	ΚV	Ŀ		- NH2
<u>Syk</u>															
163 K082D101	Myristyl - (	GМ	E M	A E	L	G P	L	N K	Y	LQQ	N	R F	ΙV		- NH2
<u>TGFbRII</u>															
164 K093D101	Myristyl - (	G T	A F	нА	K	G N	L	QE	Y	LTR	. н	VΙ	-		- NH2
<u>TrkB</u>													-		
165 K102D101	Myristyl - (	G F	ΕY	мк	H	G D	L	N K	F	LRA	Н	G F	DA	VLMA	- NH2
166 K102D106	Myristyl - (	ĠL	R A	H G	P	D A	V I	L M	Α						- NH2
167 K102D107	Myristyl -	G L	R A	Н Ġ	P	D A	. V	L .							- NH2
168 K102D108	Myristyl - (	G L	N F	K L	R	АН	G 3	P D	A						- NH2
169 K102D109	Myristyl - (	G F	K L	R A	H	G P	D.	A V	L						- NH2
<u>Zap70</u>															
170 K083D101	Myristyl - (	G M	ЕМ	A G	G	GΡ	L	нк	F	LVG	ĸ	RF	ві		- NH2

K:\RWAGNER\CMCC\679\FIGURES

% change in daily food consumption (g/mouse/d)



% change in body weight



# MODULATION OF TH1/TH2 DIFFERENTIATION BY A JAK-DERIVED PEPTIDE

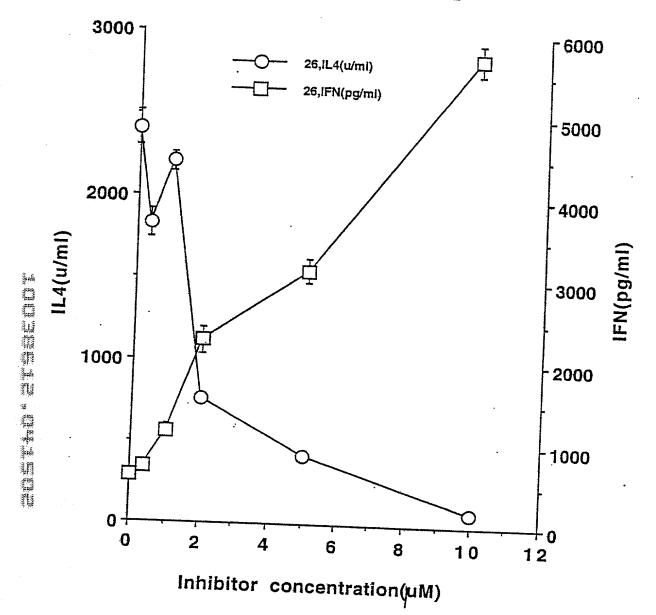


Figure 6

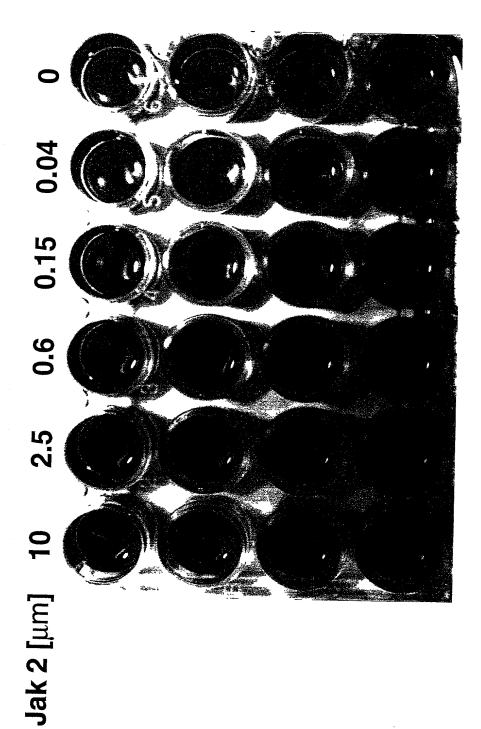


Fig. 7